

# Project Startup Report

**Project Name:** DPI and ESPB Mainframe Application Replacement phase 2

**Agency:** Department of Public Instruction

**Business Unit/Program Area:** Education Standards and Practices Board

**Project Sponsor:** David Massey, Anita Decker, Janet Welk

**Project Manager:** Val Brostrom

## Project Description

This project will rewrite the Education Standards and Practices Board (ESPB) and the Department of Public Instruction (DPI) systems from the mainframe to a modern architecture capable of meeting the data reporting demands that are required by federal and state laws today and the future. The ultimate goal of this project is to provide services to school districts and teachers to reduce their reporting burdens and the ability to provide quality and timely information to data consumers.

The current DPI MIS and ESPB systems reside on the mainframe. The migration of these applications off the mainframe is not a matter of 'if' but 'when'. This project will migrate the data and reporting off the mainframe and onto a system that can better meet the needs of DPI, ESPB, the Legislature and the school districts.

The advantage of this rewrite is the capability of developing online services and reports for DPI and ESPB that are cost prohibitive on the mainframe environment. The new environment will allow DPI and ESPB to cost effectively provide online services to districts and reduce their burden of paper reporting, report in a timely fashion, and increase the accuracy of their data. Additionally the ability to use affordable third party products for reporting and statistical analysis against data is paramount for DPI and ESPB to respond to growing needs for information and accountability.

## Business Need or Problem

In order for North Dakota to continue to receive federal funding, DPI must meet all reporting requirements. The No Child Left Behind Act has placed new and technically demanding requirements for data reporting on States and school districts and effectively raises the bar on reporting requirements year after year. This increasing demand for data required of DPI has placed the burden of gathering that data on to the schools. The State needs to create a system that will meet the federal reporting needs and yet reduce the burden of gathering data for schools, ESPB, and DPI staff.

Meeting federal time-lines for report requirements is a challenge and continues to be more difficult as federal requirements change. No Child Left Behind (NCLB) Highly-Qualified teacher mandates have placed demands on schools, teachers, ESPB, and DPI, that result in time-consuming and difficult reporting processes that are prone to errors.

DPI and ESPB have modified their existing mainframe applications to meet federal mandates; however these systems cannot be enhanced to reduce the burden placed on schools, ESPB, or DPI for the collection of accurate data. The mainframe application is not meeting the needs of DPI, ESPB, the legislature or the districts (as documented in the anticipated benefits section of this report).

Today after districts and schools have electronically reported their teacher, personnel, and course information into the State Automated Reporting System (STARS) this information is transferred to the mainframe for ESPB and DPI approval and accreditation systems to validate data, approve courses, teachers, and accredit schools in a laborious and consequently time-consuming process. The STARS system is no longer able to supply online services for improving the processes due to ESPB and DPI accreditation and licensure systems residing on the mainframe. The procedure for modifying, changing or correcting information retreats to a paper process where all changes and errors are mailed/faxed to DPI and ESPB for entry and validation in the mainframe.

- A large amount of these reports must be resubmitted on paper due to curriculum changes or errors. This is a huge burden on school system staff; we estimate statewide districts spend between 2000 – 3000 hours/year resubmitting this information.
- This error rate affects the time it takes to report this information and delays the approval process. This could mean that an unqualified teacher could teach a course and it would not be identified until the course has been taught for months.
- Today it takes months for districts to provide teacher and course information to DPI and for the results of the validations to be returned.
- Providing on-line services to the districts is vital in order to keep costs down in the future.

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| Key Metrics        |                                 |                |
|--------------------|---------------------------------|----------------|
| Project Start Date | Estimated Length of Project     | Estimated Cost |
| February 1, 2008   | Implementation by June 30, 2009 | \$665,400      |

| Benefits to Be Achieved  |  |
|--|--|
| Project Objectives   | Measurement Description  |
| A teacher licensure, credentialing and endorsement system that is online   | <ul style="list-style-type: none"> <li>The mainframe environment is no longer utilized</li> <li>Correspondence will be nearly eliminated for applications and renewals through the validation process</li> <li>Thorough validations reduce the application errors and completeness by 50%.</li> <li>Completed Licensure renewals, endorsements, and credentials will be processed within 2 business days.</li> </ul>                                 |
| LEA's and School may update Licensed and Non-Licensed Personnel data collection, changes and fixes entirely online year round. | <ul style="list-style-type: none"> <li>Districts will be able to report changes online and avoid mailing in the changes resulting in a 50% reduction in mailings.</li> <li>Districts will receive an immediate validation of education personnel online. <ul style="list-style-type: none"> <li>Teacher licensure</li> <li>Paraprofessional</li> <li>Courses associated with a teachers licensure or credentials/endorsements</li> </ul> </li> </ul> |
| Improve internal reporting functionality   | <ul style="list-style-type: none"> <li>Capability to generate ad hoc reports</li> <li>Ability to generate reports in real time</li> </ul>  |
| Cost Savings   | <ul style="list-style-type: none"> <li>Joint migration will eliminate development costs associated with interfaces to the mainframe data</li> </ul>  |

| Cost/Benefit Analysis   |
|---|
| <p>The benefits of rewriting a computer system are primarily driven by direct costs savings (hardware/hosting, software development costs and time frames) and anticipated benefits (time savings/personnel redirection/services provided/ information provided). The rewrite of the DPI MIS and ESPB system is primarily driven by anticipated benefits, the need to provide services and information to all schools representing 198 districts and the 10,555 licensed personnel that support them. Today school districts and teachers must provide much of their information using time-consuming paper reports which will be replaced by online services capable of validating information and reducing the time and effort of submitting this information.</p> <p>Benefits: Improved services to school districts and quality data:</p> <ul style="list-style-type: none"> <li>The demand for data and reports from federal agencies, state agencies and the public continues to increase year after year. To date DPI has been able to absorb the increased demands however it will not be able to sustain this pace in the future. The rewrite of the mainframe system to a modern state education database will allow DPI and ESPB to keep pace and respond to the reporting demands and accountability required. DPI now performs federal reporting year round to meet the requirements of NCLB.</li> <li>Reduced time for school and district employees to report teacher and course information to DPI and ESPB as these will be online services capable of pre-filling information year after year.</li> <li>More responsive feedback to schools regarding their approved courses and highly qualified teachers. Today it takes months for districts to provide teacher and course information to DPI and for results of the validations to be returned. By rewriting these reports and validations into STARS, DPI will be able to provide this information to districts before they submit their information.</li> <li>Provide the ability for DPI and ESPB to reuse information collected from other reports and data interfaces and reduce the amount of requests to school districts for the same information. Today, information is entered on teacher and course information multiple times within DPI and ESPB additionally collects information that may be outdated where using DPI's data would provide more current information.</li> <li>By rewriting teacher and course information reports and validations into STARS, DPI will be able to provide districts more responsive feedback to schools regarding their approved courses and highly</li> </ul> |

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qualified teachers.

- Eliminate the need for maintaining duplicate data on two or more systems. Currently data collected in the STARS system is uploaded to the mainframe for maintenance, federal reporting and for approval and accreditation processes. The data in the STARS system can no longer be used until the data synced between the systems and any changes ESPB has additionally made. Changes required by state or federal reporting demands must be made in both STARS and the mainframe and results in duplicate work.
- Improved quality of data between DPI, ESPB and school districts through the elimination of duplicate data stored in multiple systems. Lack of quality data could significantly impact legislative decisions.
- The new system would allow DPI to meet recommendations of the P16 and the Governor's Committee on Education Improvement to supply longitudinal data to statewide warehouse systems.
- Increase the ability for DPI to respond to data requests from state, federal, and public entities for information in a cost-effective manner and quicker response time. Meeting federal time-lines for report requirements is a challenge and continues to be more difficult as federal requirements change.
- Online teacher licensure renewal system which will allow individual teachers to renew their license online, providing them with instant feedback to the completeness of their application. Today it may take a month to complete the manual process. Teachers will know immediately what courses they are approved to teach.
- Allow administrators and general public to view teacher qualifications online: Raises the bar on accountability, parents are interested in this.

## Key Constraints or Risks

- NDDPI and ESPB staff resources available to work on the project are limited.
- NDDPI and ESPB may not be complete at the same time
- Contractor may have limited resources.
- The ND State legislature has authorized spending up to \$750,000 of which \$80,000 must come from ESPB